



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0614; Directorate Identifier 2007-NM-351-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposed airworthiness directive (AD) for all The Boeing Company Model 737-300, -400, and -500 series airplanes. That NPRM proposed to require repetitive operational tests of the engine fuel suction feed of the fuel system, and other related testing if necessary. That NPRM was prompted by reports of two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. This action revises that NPRM by proposing to require repetitive operational tests, and corrective actions if necessary. We are proposing this supplemental NPRM to detect and correct loss of the engine fuel suction feed capability of the fuel system, which, in the event of total loss of the fuel boost pumps, could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane. Since these actions impose an additional burden over that proposed in the previous NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

DATES: We must receive comments on this supplemental NPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sue Lucier, Aerospace Engineer,
Propulsion Branch, ANM-140S, 1601 Lind Avenue SW., Renton, Washington
98057-3356; phone: 425-917-6438; fax: 425-917-6590; email: suzanne.lucier@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2008-0614; Directorate Identifier 2007-NM-351-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We issued an NPRM to amend 14 CFR part 39 to include an AD that would apply to all The Boeing Company Model 737-300, -400, and -500 series airplanes. That NPRM published in the Federal Register on June 6, 2008 (73 FR 32258). That NPRM proposed to require repetitive operational tests of the engine fuel suction feed of the fuel system, and other related testing if necessary. That NPRM proposed that those actions be done according to a method approved the FAA.

Actions Since Previous NPRM (73 FR 32258, June 6, 2008) was Issued

Since we issued the previous NPRM (73 FR 32258, June 6, 2008), we have received comments from operators indicating a high level of difficulty performing the actions in the previous NPRM during maintenance operations.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 737-28A1307, dated May 14, 2012. This service information describes procedures for repetitive operational tests of the engine fuel suction feed of the fuel system, and corrective actions if necessary. The corrective actions include isolating the cause of any leakage and repairing the leak.

Comments

We gave the public the opportunity to comment on the previous NPRM (73 FR 32258, June 6, 2008). The following presents the comments received on the previous NPRM and the FAA's response to each comment.

Requests to Revise Compliance Time

Boeing asked that we revise the compliance time in paragraph (f) of the previous NPRM (73 FR 32258, June 6, 2008) (referred to as paragraph (g) in this supplemental NPRM) to include a calendar time of 3 years for the low-utilization airplanes. Boeing stated that low-utilization airplanes may not meet the 7,500-flight-hour threshold for several years.

We do not agree with the 3-year calendar time. As specified previously, Boeing has issued Alert Service Bulletin 737-28A1307, dated May 14, 2012, which specifies a compliance time of 24 months. Therefore, we have revised paragraph (g) of this supplemental NPRM to include doing the initial test within 7,500 flight hours or 24 months, whichever occurs first. We have also included a repetitive interval of 7,500 flight hours or 24 months, whichever occurs first.

Continental Airlines (CAL), British Airways (BA), KLM Royal Dutch Airlines, and Lufthansa Basis (LBA) asked that we extend the repetitive operational test interval required by paragraph (f) of the previous NPRM (73 FR 32258, June 6, 2008). CAL stated that a re-evaluation of the proposed repetitive interval limit after doing the initial inspection should be done, since its service history has revealed no reported engine flameout events or related operational discrepancies. CAL asked that the repetitive interval be extended to repeating the inspection during a normal maintenance 2C-check or within 8,000 flight cycles, whichever occurs first. LBA stated that the repetitive interval of 7,500 flight hours does not match maintenance planning data (MPD) or maintenance review board (MRB) intervals of every 1 C-check and 4,000 flight hours, and asked for clarification and revision. KLM stated that if an airplane does not pass the operational test, a tank entry is required, which has an impact on the downtime requirements for C-checks. KLM asked that the initial compliance time be extended from within 7,500 flight hours to within 8,000 flight hours or at the next 2 C-check, with the same interval for the repetitive tests. BA stated that the test is already covered in the MPD task with a compliance time of 4,000 flight hours.

We do not agree with the requests to revise the compliance time by extending the flight-hour compliance time or adding maintenance check intervals. The compliance time in the MPD is not required by this supplemental NPRM because we have determined that the 7,500-flight-hour or 24-month interval, whichever occurs first, addresses the identified unsafe condition. In developing an appropriate compliance time for the actions specified in paragraph (g) of this supplemental NPRM (paragraph (f) of the previous NPRM (73 FR 32258, June 6, 2008)), we considered the safety implications and normal maintenance schedules for the timely accomplishment of the specified actions. We have determined that the proposed compliance time will ensure an acceptable level of safety

and allow the actions to be done during scheduled maintenance intervals for most affected operators.

However, affected operators may request approval of an alternative method of compliance (AMOC) for an extension of the repetitive operational test interval under the provisions of paragraph (h) of this supplemental NPRM by submitting data substantiating that the change would provide an acceptable level of safety. We have not changed the supplemental NPRM in this regard.

Request to Include Corrective Action

Boeing asked that the related testing language specified in the “Summary,” “FAA’s Conclusions,” and “FAA’s Determination and Requirements of this Proposed AD” sections of the previous NPRM (73 FR 32258, June 6, 2008) be changed. Boeing stated that it should specify correcting discrepancies before further flight if the engine fails the operational test.

We agree with the request. We have revised the language describing the proposed actions as appropriate throughout this supplemental NPRM. We also have changed paragraph (g) of this supplemental NPRM to specify doing all applicable corrective actions before further flight in accordance with Boeing Alert Service Bulletin 737-28A1307, dated May 14, 2012.

Request to Clarify if Engine Fuel Suction Feed Test is Allowed in lieu of the Operational Test

KLM asked that we clarify if the fuel feed manifold air pressure leak check procedure specified in airplane maintenance manual (AMM) 28-22-15 is an alternative to performing the operational test. KLM added that this alternative test is allowed by AMM 28-22-00.

We agree to provide clarification. The manifold leak test (Task 28-22-00-710-801) is not equivalent to the operational test (Task 28-22-00-710-802) for the purposes of this proposed action. The positive internal fuel line pressure applied

during the manifold test does not simulate the same conditions encountered during fuel suction feed (i.e., vacuum), and might mask a failure. Therefore, we have not changed the supplemental NPRM in this regard.

Requests to Add AMM Task Card and MPD Tasks or Remove Existing Reference

BA, LBA, and Air Nippon (ANK) asked that AMM MSG3 Task Card be added to paragraph (f) of the previous NPRM (73 FR 32258, June 6, 2008) as a method of compliance for performing the operational test. BA also asked that the NPRM reference the MPD tasks associated with the check. The commenters stated that the task card is equivalent to AMM Task Card B28-22-00-2B, which is specified in paragraph (f) of the previous NPRM. Boeing asked that the NPRM only include AMM Task Card B28-22-00-2B in paragraph (f) of the previous NPRM, and remove reference to AMM 28-22-00. Boeing stated that the fewer references, the less chance of errors.

We do not agree to add a reference to the task cards and MPD tasks, or to remove the reference to AMM 28-22-00. However, we have revised paragraph (g) of this supplemental NPRM to require accomplishing operational tests and applicable corrective actions in accordance with Boeing Alert Service Bulletin 737-28A1307, dated May 14, 2012.

Requests to Allow the Use of Later Revisions of the Maintenance Documents

Boeing asked that we allow using later revisions of the Boeing 737-300/400/500 Task Card B28-22-00-2B, dated July 12, 2006, because the task card date could be revised over time and would require frequent requests for AMOCs. BA asked that we allow for using the AMM and Boeing task cards having Revision July 12, 2006 or later.

We do not agree with the request. Allowing later revisions of service documents in an AD is not allowed by the Office of the Federal Register regulations for approving materials incorporated by reference. Affected operators may, however, request approval to use a later revision of referenced service information as an AMOC in accordance with

paragraph (h) of this supplemental NPRM. We have not changed the supplemental NPRM in this regard.

Request to Include Warning Information

CAL suggested that the Boeing service manuals include a warning identification statement to alert maintenance personnel of the importance of regulatory compliance. CAL did not include any justification for this request.

We agree that a warning statement would serve as direct communication to maintenance personnel that there is an AD associated with certain maintenance actions, but do not find this additional measure necessary to adequately address the unsafe condition. We have made no change to the supplemental NPRM in this regard.

Change to Previous NPRM (73 FR 32258, June 6, 2008)

The Costs of Compliance section in the previous NPRM (73 FR 32258, June 6, 2008) has been changed to correct the number of U.S.-registered airplanes affected. The data source used in 2007, which specified a total of 669 airplanes of U.S. registry, did not provide an accurate count; therefore, we have used the current information available to determine that 827 airplanes of U.S. registry are affected by the actions in this supplemental NPRM.

We have clarified the unsafe condition identified in the previous NPRM (73 FR 32258, June 6, 2008) by specifying that the previous NPRM results from two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine.

FAA's Determination

We are proposing this supplemental NPRM because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design. Certain changes described above

expand the scope of the previous NPRM (73 FR 32258, June 6, 2008). As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this supplemental NPRM.

Proposed Requirements of the Supplemental NPRM

This supplemental NPRM would revise the previous NPRM (73 FR 32258, June 6, 2008) by proposing to require repetitive operational tests of the engine fuel suction feed of the fuel system, and corrective actions if necessary.

Costs of Compliance

We estimate that this proposed AD would affect 827 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Cost per product	Cost on U.S. operators
Operational Test	Up to 12 work-hours X \$85 per hour = \$1,020 per engine, per test	Up to \$2,040	Up to \$1,687,080

We have received no definitive data that would enable us to provide a cost estimate for the on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2008-0614; Directorate Identifier 2007-NM-351-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 2800, Aircraft Fuel System.

(e) Unsafe Condition

This AD was prompted by reports of two in-service occurrences on Model 737-400 airplanes of total loss of boost pump pressure of the fuel feed system, followed by loss of fuel system suction feed capability on one engine, and in-flight shutdown of the engine. We are issuing this AD to detect and correct loss of the engine fuel suction feed capability of the fuel system, which in the event of total loss of the fuel boost pumps could result in dual engine flameout, inability to restart the engines, and consequent forced landing of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Operational Test and Corrective Actions

Within 7,500 flight hours or 24 months after the effective date of this AD, whichever occurs first: Perform an operational test of the engine fuel suction feed of the fuel system, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-28A1307, dated May 14, 2012. Do all applicable corrective actions before further flight. Repeat the operational test thereafter at intervals not to exceed 7,500 flight hours or 24 months, whichever occurs first. Thereafter, except as provided in paragraph (h) of this AD, no alternative procedures or repetitive test intervals are allowed.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Sue Lucier, Aerospace Engineer, Propulsion Branch, ANM-140S, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6438; fax: 425-917-6590; email: suzanne.lucier@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet

<https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington on January 18, 2013.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2013-01954 Filed 01/29/2013 at 8:45 am; Publication Date: 01/30/2013]